

# WARNING

KEEP OUT OF REACH OF CHILDREN

READ SAFETY DIRECTIONS BEFORE OPENING OR USING



**Quantum**<sup>®</sup>  
Selective Herbicide

## HERBICIDE

Contains: 500g/Litre of diflufenican in the form of a suspension concentrate

**For the control of broadleaf weeds in green pea (without pod),  
forage peas and winter and spring sown cereals except oats**


NET CONTENTS: 5 LITRES

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Approved pursuant to the HSNO Act 1996, No: HSR001704. See [www.epa.govt.nz](http://www.epa.govt.nz) for approval conditions.

Registered pursuant to the ACVM Act 1997, No: P007306. See [www.foodsafety.govt.nz](http://www.foodsafety.govt.nz) for registration conditions.

**arxada**

	<b>GHS CLASSIFICATION</b>	<b>HAZARD STATEMENT</b>
	Hazardous to soil organisms Hazardous to the aquatic environment acute and chronic Category. 1	Hazardous to soil organisms. Very toxic to aquatic life, with long lasting effects.
<p><b>FIRST AID:</b> Call doctor/physician if you feel unwell.  <b>PERSONAL PROTECTION:</b> Wear protective gloves/protective clothing/eye protection/face protection.  <b>STORAGE:</b> Store locked up. Store in original container, tightly closed and in a dry, cool area away from foodstuffs. Store in accordance with NZS 8409 Management of Agrichemicals.  <b>DISPOSAL:</b> Avoid contamination of any water supply with product or empty container. Triple rinse empty container placing rinse water in the spray tank. If recycling, discard cap and deliver clean container to an Agrecovery depot or crush and bury in an approved landfill. Dispose of product only by using according to this label, or at an approved landfill or disposal facility.  <b>SPILLAGE:</b> Wear appropriate protective clothing. Exclude all bystanders from the vicinity of the spill and prevent material from entering waterways. Contain liquid spills and absorb with inert material and place in waste containers. Wash area with water and absorb with further inert material. Dispose of waste safely in an approved landfill.  <b>SAFETY DATA SHEET:</b> Additional information is listed in the Safety Data Sheet available from Arxada NZ Limited or arxada.co.nz.  <b>QUALIFICATION REQUIREMENTS:</b> Persons mixing, loading, applying, or otherwise handling Quantum must meet qualification requirements set out in the EPA Hazardous Substances (Hazardous Property Controls) Notice 2017.  <b>HSNO ADDITIONAL CONTROLS:</b> The maximum application rate for Quantum shall be 200 ml/ha (100 g ai (diflufenican)/ha in cereals and peas once per year.</p>		

**PLEASE READ THE ENTIRE LABEL BEFORE MIXING OR USE. SHAKE OR STIR WELL BEFORE USE**

**GENERAL INFORMATION:** Quantum must be applied to actively growing weeds but before they reach the maximum growth stages indicated above. Weeds at a more advanced stage may only suffer a temporary check. Susceptible weeds germinating after application will be controlled by residual activity.

Quantum is most effective when soil conditions favour rapid growth; moist soil and high light intensity result in a rapid discolouration of target weeds. Weeds may take several days to die but they will no longer compete with the crop for moisture, light and nutrients. Dry soil conditions will reduce activity and drought affected weeds are less susceptible. Quantum should be applied to a fine, well prepared, moist, compact seedbed. Clods greater than 5 cm in diameter and surface trash may impair performance. Quantum should not be used on soils with an organic matter content over 10%.

Quantum may be used on all varieties of wheat and barley at any growth stage up to jointing although it may cause slight crop yellowing, particularly on barley, under cool, wet conditions or on light soils. This condition is temporary and will not affect subsequent crop growth or yield. Quantum should not be applied to cereals undersown with grass or clover, or to oats or other cereals not listed, under drought conditions or if severe frosts are expected.

**MODE OF ACTION:** Quantum is both shoot and root absorbed giving good contact and residual activity against young seedling and germinating weeds. It acts by blocking the photosynthetic processes of the plant causing extensive bleaching and discolouration of new growth. It is particularly active on field pansy and some cruciferous species, but controls a broad spectrum of weeds.

**DIRECTIONS FOR USE:**

CROP TYPE	RATE	CRITICAL COMMENTS
<b>CEREALS</b> Winter and spring sown wheat, barley, ryecorn and triticale	200 ml/ha plus 1 litre/ha of Twister® (isoproturon 50SC)	Apply between early post-emergence and jointing, but while weed species present are within the growth stages specified above. <b>WEEDS CONTROLLED:</b> Cotyledon - 4 leaf stage: Black nightshade, catchfly, chickweed, field pansy, henbit, hempnettle, mouse-eared chickweed, nettle, nipplewort, oxtongue, parsley piert, redroot, scarlet pimpernel, scrambling speedwell, shepherds purse, spurrey, twincross, wild turnip. Cotyledon - 2 leaf stage: Seedling broadleaved dock, cornbind, dandelion, fathen, scentless chamomile, small flowered buttercup, sowthistle, vetch, willow weed, wireweed, yellow gromwell. Cotyledon - 1 leaf stage: Cleavers, fumitory. Older stages of weeds than specified above may only be severely checked or suppressed. Perennial weeds, especially those growing from root chips, will not be controlled.
<b>PEAS</b> Green pea (without pod) and green forage peas.	Apply a single application per season between the 3rd and 5th node growth stage. Significant whitening of pea leaves may occur in some cases. This whitening is transient and does not lead to a decrease in yield. Quantum must be applied with a suitable tank mix partner for control and care should be taken to ensure that the overlapping of applications is avoided. Not for use in peas to be sold in whole pods or dried.	
	200 ml/ha plus Bruno® (cyanazine) 2.5 litres/ha	<b>WEEDS CONTROLLED:</b> up to the 4 leaf stage: amaranthus (redroot), black nightshade, fathen, field pansy, hairy nightshade, shepherds purse, speedwell and staggerweed. MCPB 1.4 litres/Ha may also be tank mixed with this combination as a triple mix.
	200 ml/ha plus MCPB 1.4 litres/ha Use only 385 g/litre strength MCPB suspension concentrates	<b>WEEDS CONTROLLED:</b> up to the 4 leaf stage: black nightshade, fathen, hairy nightshade and shepherds purse.

**MIXING:** Pour the correct volume of Quantum into the partly filled tank, and while agitating add the remainder of the water. Maintain agitation during spraying and any stoppages. Only mix sufficient spray for immediate use and avoid storing.

**ADJUVANTS:** When used in mixture, Quantum does not normally require adjuvants, wetters or crop oils.

**It is an offence for users of this product to cause residues exceeding the relevant MRL in the Food Notice: Maximum Residue Levels for Agricultural Compounds.**

**WITHHOLDING PERIODS:** Cereals - not required when used as directed. **Green Pea (without pod)** - Do not apply after the 5th node growth stage.

**SOIL RESIDUES:** After harvest thoroughly cultivate soil before sowing subsequent crops. In the event of a winter crop failure through drought or disease, replant in the spring only with wheat or barley after thorough cultivation.

**COMPATIBILITY:** Compatible in tank mixtures with chlorsulfuron on cereals. Compatible with Bruno (cyanazine), MCPB (385g/litre strength suspension concentrates), and Basagran (bentazone). DO NOT mix with any emulsifiable concentrate formulations. Observe all other directions for use for any tank mixing partners especially in peas when applied with Bruno.

**APPLICATION:** Apply through any standard crop sprayer capable of giving uniform coverage at a spray volume of between 150-300 litres of water/ha. Use spray pressures of at least 200 kPa and select spray nozzles capable of producing fine spray droplets. CDA or aerial application is not recommended. Avoid overlapping or over dosing as this may cause crop injury.

**SPRAYER CLEAN-UP:** To avoid injury to subsequently sprayed sensitive crops, thoroughly clean spray equipment with several rinses of clean water after use.

**RAINFALL:** Rainfall within 6 hours following treatment may reduce effectiveness.

**BEWARE:** Apply this product carefully. Spray drift may cause serious damage to desirable plants. Ensure compliance with relevant air management plans. A strategy to minimise spray drift should be employed at all times when applying spray near aquatic environments.

**RESISTANCE MANAGEMENT:** **GROUP 12 HERBICIDE** Diflufenican is a pyridinecarboxamide herbicide with the inhibition of carotenoid biosynthesis mode of action. Naturally occurring weed biotypes resistant to this herbicide could develop. These resistant weeds may dominate a population when Quantum or other group 12 herbicides are used exclusively. To minimise this risk use strictly in accordance with label instructions and any resistance management strategies that may exist. For further information see www.resistance.nzpps.org

**GRAZING WITHHOLDING PERIOD:** Green Forage Peas and Process Pea Haulms - 35 days.

**NOTICE TO BUYER:** The manufacturer and vendors of Quantum warrant the formulation to contain the specified active ingredient within accepted tolerance but make no warranty of any kind on the uses of material and accept no responsibility, whether the material is used in accordance with the label directions or not.

**REGISTERED TO:** Arxada NZ Limited, Hudson Road, New Plymouth, NZ

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**BATCH NO:**  
**D.O.M:**